Approved For Release 2001/04/02 : CIA-RDP78B04747A000200010011-7

[redacted]

9 March 1964
GS:bb:191 (997-112)

TO:
FROM: [redacted]
STATINTL SUBJECT: Project MicroCap Task Assignments
DATE: 9 March 1964
STATINTL CC: [redacted]

STATINTL Project MicroCap is a study of microdensitometer capability and interpretation techniques. There are three objectives. The first is the publication of a manual which will enable a microdensitometer operator to use the instrument to its maximum capability and to accurately interpret the data therefrom. The second is a survey of existing instruments to study most recent developments in microdensitometry. The third objective is a study of the feasibility and effectiveness of various advances in the state-of-the-art.

Personnel assignments for the accomplishment of these tasks are tentatively as follows:

TASK	RESPONSIBILITY
I. Mensuration Procedures and Data Interpretation Study	STATINTL [redacted]
A. Mensuration Procedures	
1. Applications of Microdensitometry	
2. Error Limits	
B. Data Interpretation Considerations	
1. Instrument Resolution and Coherence Effects	
2. Grain Scattering Effects	
3. Aperture and Magnification Selection	

Declass Review by NIMA/DOD

Approved For Release 2001/04/02 : CIA-RDP78B04747A000200010011-7

Approved For Release 2001/04/02 : CIA-RDP78B04747A000200010011-7

TASK	STATINTL RESPONSIBILITY
II. Equipment Capability Study	[redacted]
A. Existing Instruments Survey	
B. Classification of Microdensitometers	
C. Microdensitometer Sensitivity	
III. Feasibility Studies	
A. Visual Display	
1. Techniques	
2. Effectiveness	
B. Photo Micrograph	
1. Feasibility	
2. Effectiveness	
C. Laser Light Source	
1. Laser Intensities	
2. Coherence of Lasers	
3. Phase Aperture Shaping	
4. Maintainability, Lifetime, and Auxilliary Equipment Requirements of Lasers	
5. Experiments	
D. Standard Density Wedges	
1. Availability	
2. Test	
E. Color Densitometry	
1. Design	
2. Tests	
IV. Documentation	
A. Monthly Reports	
B. Final Reports	
1. Handbook	
2. Reports of Tasks II and III	

Approved For Release 2001/04/02 : CIA-RDP78B04747A000200010011-7

Approved For Release 2001/04/02 : CIA-RDP78B04747A000200010011-7

The results of the first month's activities will shape the activities of the following months. Therefore, effort for the first month of the program, i.e. the month ending 2 April 1964, should be concentrated in the following areas for which firm assignments have been made:

STATINTL [redacted]

Inquiries to microdensitometer manufacturers; should have most of

STATINTL the requirements for a standard set of microdensitometer performance tests.

[redacted]

Study unfolding of aperture effects; investigate lens resolution and

STATINTL source coherence.

[redacted]

Study grain scattering effects on specular and diffuse density measure-

STATINTL ments.

[redacted]

STATINTL Integrate TASK III; investigate density standards.

[redacted]

Formulate a plan of research for evaluating a laser source in a

STATINTL microdensitometer.

[redacted]

Study mensuration procedures; collection of descriptions of microdensitometer data analysis procedures; analysis of image motion.

Approved For Release 2001/04/02 : CIA-RDP78B04747A000200010011-7